

AGENDA ITEM IV

PROPOSED NEW ACADEMIC/RESEARCH CENTER

UNIVERSITY OF LOUISIANA AT LAFAYETTE

CENTER FOR STRUCTURAL AND FUNCTIONAL MATERIALS

AGENDA ITEM IV

PROPOSED NEW ACADEMIC/RESEARCH CENTER

UNIVERSITY OF LOUISIANA AT LAFAYETTE

CENTER FOR STRUCTURAL AND FUNCTIONAL MATERIALS

BACKGROUND INFORMATION

The Board of Regents Guidelines: Proposed Centers, Institutes, and Other Similar Academic/Research Units provide two different review procedures for proposed new academic/research units, depending on the projected source of funding. For proposed units designed to oversee emerging research programs which anticipate the availability of non-state support, the Regents will consider a proposal for a one-year period of conditional approval, prior to submission of a full proposal.

STAFF ANALYSIS

1. Description/Mission

The mission of the center is to foster interdisciplinary research in advanced and specialized metals, polymers, ceramics, and composite materials. This in turn would help to foster the growth of manufacturing and small businesses in related industries (a goal of Vision 2020). Creating the center would also represent a response to national and state needs as expressed by the NSF and the Board of Regents Support Fund (BORSF), the latter of which has identified materials research as a thrust area in its Industrial Ties Research Program.

2. Need

The proposed center does not duplicate the missions of related centers around the state. Regarding the Advanced Materials Research Institute at UNO and the Center for Advanced Microstructure Development at LSU, the proposal states that “these two centers are largely devoted to non-load bearing or non-structural materials, while the proposed Center for Structural and Functional Materials will be primarily dedicated to structural (load-bearing) materials and their functional behavior, which are consumed in large volume for structural applications.”

3. Faculty and Administration

The center will be directed by a full-time professor in Chemical Engineering who will report on center-related activities to the Vice President for Research and Graduate Studies. Twelve other full-time faculty will be associated with the center. Their areas of expertise include:

- corrosion modeling
- ion-implantation of materials
- new piping materials
- low-temperature processes of VLSI manufacturing
- materials to minimize vibration in drilling
- advanced transportation materials
- spectroscopy research in corrosion and deformations
- nanocrystalline powders
- microlithographic techniques in ceramics, metals, and polymers
- characterization of polymer and metal surfaces

An extensive list of publications from associated faculty was included with the proposal. There is currently one full-time post-doctoral research associate and four graduate students dedicated to center activities.

4. Facilities and Equipment

The center facilities are located in Rougeau Hall and Madison Hall, the two primary teaching, laboratory, and research facilities for engineering on campus. A list of devices used for structural and functional materials research (processing, characterizing, evaluating) was included with the proposal. The University projects no need for new equipment at this time.

5. Budget

The center is funded by three sources: the university itself, external grants, and revenue from “charging industrial users and those academic users of the center who have outside funding for research... The cost of usage will be incorporated in the project proposals bringing considerable revenue that will facilitate the growth of the center.”

Projected costs are as follows:

Costs	2004-04	2005-06	2006-07	2007-08	2008-09
Personnel	\$ 86,615	\$ 88,332	\$ 90,151	\$ 92,079	\$ 94,124
Dir. Release					
Grad. Assts.					
Res. Assoc.					
Fringe					
Travel	3,000	3,000	3,000	3,000	3,000
Operating	5,000	5,000	5,000	5,000	5,000
Supplies	2,000	2,000	2,000	2,000	2,000
Total	\$ 96,615	\$ 98,332	\$ 100,151	\$ 102,079	\$ 104,124

Projected revenue is as follows:

Revenue	2004-04	2005-06	2006-07	2007-08	2008-09
Federal	\$ 60,000	-	-	-	-
State	257,500	120,000	-	-	-
Other	102,500	102,500	50,000	-	-
Total	\$ 420,000	\$ 222,500	\$ 50,000	-	-

STAFF SUMMARY

The proposed center is organized and structured around a well-defined interdisciplinary research effort. Faculty and administrative plans are appropriate. The center should serve and strengthen links between the academic and professional communities. Prospects for continued external funding are good. Since the center has sufficient revenue in-hand to meet costs for the first two years of operation, the staff recommends full approval for a period of two years. As external sources of funding are less certain, starting in year three, the staff recommends that the University provide an update relative to existing and projected funding for subsequent years.

STAFF RECOMMENDATION

The staff recommends that the Academic and Student Affairs Committee grant full approval for the proposed Center for Structural and Functional Materials, effective immediately, for a period of two years from this date. By December 1, 2007, the University shall submit an a report to the Commissioner of Higher Education which details necessary funding secured for subsequent years of center operations.